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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/754,572	01/04/2001	Lincoln M. Little	29766-68065	2878

			EXAMINER
30450	7590	02/02/2005	SIMITOSKI, MICHAEL J

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ART UNIT	PAPER NUMBER
2134	

DATE MAILED: 02/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/754,572	LITTLE ET AL.
	Examiner	Art Unit	
	Michael J Simitoski	2134	

-- Th MAILING DATE of this communication appears on the cover sh et with the correspond nc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>03 August 2004</u>.

2a) ☒ This action is **FINAL.**   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-28</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-5,9,13-19,23,27 and 28</u> is/are rejected.

7) ☒ Claim(s) <u>6-8,10-12,20-22 and 24-26</u> is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>04 January 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/18/04</u>.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   The response of 8/30/04 was received and considered.

2.   Claims 1-28 are pending.

Response to Arguments

3.   Applicant's arguments, filed 8/30/04, regarding the originally filed claims, have been fully considered but they are not persuasive.

4.   Applicant's response (p. 2, ¶3 – p. 4, ¶1) suggests that Borgelt fails to teach the limitation "obtaining a software identification code relating to at least a portion of software information to be downloaded into said embedded system." However, Baker discloses downloading software from a service/recalibration tool to an embedded system (col. 2, line 63 – col. 3, line 8). Baker further discloses that there is a need to provide additional control system functions (col. 1, lines 33-37). A portion of the software/loading routine for a control system is stored in compressed (non-activated) form on the embedded system and more can be added via an interface (col. 1, lines 60-65 & col. 1, lines 63-67). The loading routine is decompressed and used to download data from the service tool (col. 6, lines 42-54) and can be used to replace itself with data downloaded form the tool (col. 7, lines 1-6). Borgelt teaches the benefits of using a hardware ID in conjunction with a software ID (bit mask, software version number, etc) (col. 4, lines 5-28). Borgelt teaches that this concept authorizes "only those software programs legitimately purchased by a customer" (col. 5, lines 61-65). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to obtain hardware and software identification codes, the software code relating to at least a portion of software

information to be downloaded. The code is related to the software to be downloaded and can be

used to initialize the loading routine to load software to the embedded system, including

replacing itself.

5.   In response to applicant's argument that the references fail to show certain features of

applicant's invention, it is noted that the features upon which applicant relies (i.e., (p. 3, ¶2) that

claim 1 "requires the software ID to relate to software information that is not resident within the

embedded system, but is instead resident within some other system") are not recited in the

rejected claim(s). Although the claims are interpreted in light of the specification, limitations

from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26

USPQ2d 1057 (Fed. Cir. 1993). Claim 1 states that the SWID relates to at least a portion of

software information to be downloaded. It is implied that the software is present in some other

system, but not explicitly stated and the claims do not recite that the software is not resident in

the embedded system.

6.   Applicant's response (p. 4, ¶2) suggests that Borgelt in combination with the other

references fails to teach the limitation "the provider of the software information to create the

password as a function of the hardware ID (first identifier) and the software ID (second

identifier)." However, Borgelt teaches a system controller/provider obtaining a hardware ID

and a software code and combining them into a new code/password (col. 4, lines 5-27).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8.   Claim 1-5 & 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent 6,009,372 to Baker et al. (Baker) in view of U.S. Patent 5,398,285 to Borgelt et al.

(Borgelt) in further view of U.S. Patent 6,488,585 to Wells et al. (Wells).

Regarding claims 1, 3 & 5, Baker discloses downloading a portion of software

information/data from a service/recalibration tool/support equipment into an embedded system

(col. 2, line 63 – col. 3, line 8 & col. 10, lines 28-45). Baker lacks obtaining a hardware and

software identification code, creating a password as a function of the codes and downloading a

password-protected software based on said password. However, Borgelt teaches that obtaining

the hardware ID of a device and an embedded software code representing requested software and

combining them into a password (col. 3, lines 53-58 & col. 4, lines 5-27) allows the authorization

of only those software programs legitimately purchased by a customer (col. 1, lines 40-46 & col.

5, lines 61-65). Therefore, it would have been obvious to one having ordinary skill in the art at

the time the invention was made to obtain a hardware identification code, obtain a software

identification code relating to at least a portion of software information to be downloaded and

create a password as a function of the HWID and SWID and password-protect the software. One

of ordinary skill in the art would have been motivated to perform such a modification to

authorize the use of only those software programs legitimately purchased by a customer, as

taught by Borgelt (col. 1, lines 40-46 & col. 5, lines 61-65). As modified, Baker lacks using the

authentication, as taught by Borgelt, to download the authorized software based on said

password. However, Wells teaches that it is useful to identify a device or its components to

guard against inadvertent or intentional modifications (col. 12, lines 28-33) using a system

identifier associated with the embedded system/gaming device (col. 11, lines 1-6). Wells teaches

that a service/recalibration tool (such as a mobile laptop) can be connected to an embedded

system/device to receive a software update (such as a gaming machine) (col. 11, lines 7-10). The

laptop can access the gaming devices identifications to determine if it is authorized for a

software update (for many reasons, including warranty) (col. 11, lines 1-47). Therefore, it would

have been obvious to one having ordinary skill in the art at the time the invention was made to

use the password to enable downloading of the software information. One of ordinary skill in

the art would have been motivated to perform such a modification to identify a device or its

components to guard against inadvertent or intentional modifications, possibly to avoid updating

software on a machine whose warranty has run out, as taught by Wells (col. 11, lines 1-47 & col.

12, lines 28-33).

Regarding claims 2, 4 & 14, Baker, as modified above, lacks a set of downloading

instructions within the service/recalibration tool/support equipment that verifies the validity of

the password and downloading the information into the embedded system is validity is

confirmed. However, Borgelt teaches that receiving a password and validating (col. 4, line 66 –

col. 5, line 13) it allows the authorization of only those software programs legitimately purchased

by a customer (col. 1, lines 40-46 & col. 5, lines 61-65). Therefore, it would have been obvious

to one having ordinary skill in the art at the time the invention was made to provide software

downloading instructions resident within the service/recalibration tool/support equipment with

the password and download the password-protected portion of the software information from the

recalibration tool into the embedded system only if the downloading software validates the

password. One of ordinary skill in the art would have been motivated to perform such a

modification to authorize the use of only those software programs legitimately purchased by a

customer, as taught by Borgelt (col. 1, lines 40-46 & col. 5, lines 61-65).

Regarding claim 13, Baker, as modified above, discloses providing the HWID and SWID

to a provider of said software/system controller to create the password (Borgelt, col. 4, lines 5-

27), but lacks a service technician obtaining and providing the HWID and SWID. However,

Wells teaches that it is possible to store HWID-SWID/characteristic-indicating information in

human-readable form (requiring the action of a human) (Wells, col. 13, lines 15-21). Further,

Borgelt teaches that the password can be entered into the device by a customer or field technician

(Borgelt, col. 5, lines 47-54). Therefore, it would have been obvious to one having ordinary skill

in the art at the time the invention was made to perform the steps of obtaining and providing by a

software transfer technician. One of ordinary skill in the art would have been motivated to

perform such a modification as suggested by Borgelt (col. 5, lines 47-54) and Wells (col. 13,

lines 15-21).

Regarding claim 15, Baker discloses an internal combustion engine (Fig. 1).

9.   Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baker, Borgelt and

Wells, as applied to claim 1 above, in further view of U.S. Patent 6,173,402 to Chapman. Baker

discloses a system, as modified above, but lacks accessing a memory unit of the

service/recalibration tool and downloading from the memory unit an identifier associated with

the service/recalibration tool. However, Chapman teaches a technique by which stored

information can be protected even in the presence of keystroke monitoring (col. 4, lines 25-40)

and allows access to a data storage medium only from an authorized computer (col. 8, lines 58-64). Chapman's method includes combining a user-entered password with a second value that is unique and local to the user's computer so the software can only be accessed on the user's computer and accessed by the user (col. 5, lines 1-15). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to access the memory unit of the service/recalibration tool and download from the memory unit an identifier associated with the service/recalibration tool. One of ordinary skill in the art would have been motivated to perform such a modification to allow access to data only from an authorized computer, by an authorized user, as taught by Chapman (col. 4, lines 25-40, col. 5, lines 1-15 & col. 8, lines 58-64).

10.   Claims 16-19 & 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wells in view of Borgelt.

    Regarding claims 16, 18 & 27, Wells discloses providing a first identifier relating to software transferring hardware/gaming terminal (col. 11, lines 1-44). Wells lacks providing a second identifier relating to software information to be downloaded into an embedded system to a provider of said software information, said software provider creating a password as a function of said first and second identifiers, and downloading a password protected portion of said software information into said embedded system based on said password. However, Borgelt teaches that obtaining the hardware ID/first identifier of a device and an embedded software code/second identifier representing requested software and combining them into a password, at a software provider/system controller, (col. 3, lines 53-58 & col. 4, lines 5-27) allows the

authorization of only those software programs legitimately purchased by a customer (col. 1, lines 40-46 & col. 5, lines 61-65). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a software identification code relating to at least a portion of software information to be downloaded to a software provider/system controller and create a password as a function of the first and second identifiers and download a password protected portion of said software information into said embedded system/gaming terminal based on said password. One of ordinary skill in the art would have been motivated to perform such a modification to authorize the use of only those software programs legitimately purchased by a customer, as taught by Borgelt (col. 1, lines 40-46 & col. 5, lines 61-65).

Regarding claims 17 & 19, Wells, as modified above, lacks a set of downloading instructions within the service/recalibration tool/support equipment that verifies the validity of the password and downloading the information into the embedded system is validity is confirmed. However, Borgelt teaches that receiving a password and validating (col. 4, line 66 – col. 5, line 13) it allows the authorization of only those software programs legitimately purchased by a customer (col. 1, lines 40-46 & col. 5, lines 61-65). The password can be directly communicated or given to a field technician (col. 5, lines 46-54). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to obtain the password from the software provider/system controller and to provide software downloading instructions resident within the service/recalibration tool/support equipment with the password and download the password-protected portion of the software information from the recalibration tool into the embedded system only if the downloading software validates the password.' One of ordinary skill in the art would have been motivated to perform such a modification to authorize

the use of only those software programs legitimately purchased by a customer, as taught by

Borgelt (col. 1, lines 40-46 & col. 5, lines 61-65).

11.   Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wells in view of

Borgelt, as applied to claim 16 above, in further view of Chapman. Wells discloses a system, as

modified above, but lacks accessing a memory unit of the service/recalibration tool and

downloading from the memory unit an identifier associated with the service/recalibration tool.

However, Chapman teaches a technique by which stored information can be protected even in

the presence of keystroke monitoring (col. 4, lines 25-40) and allows access to a data storage

medium only from an authorized computer (col. 8, lines 58-64). Chapman's method includes

combining a user-entered password with a second value that is unique and local to the user's

computer so the software can only be accessed on the user's computer and accessed by the user

(col. 5, lines 1-15). Therefore, it would have been obvious to one having ordinary skill in the art

at the time the invention was made to access the memory unit of the service/recalibration tool

and download from the memory unit an identifier associated with the service/recalibration tool.

One of ordinary skill in the art would have been motivated to perform such a modification to

allow access to data only from an authorized computer, by an authorized user, as taught by

Chapman (col. 4, lines 25-40, col. 5, lines 1-15 & col. 8, lines 58-64).

12.   Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wells in view of

Borgelt, as applied to claim 16 above, in further view of Baker. Wells, as modified above, lacks

the embedded system being a control computer associated with a vehicle carrying an internal

combustion engine. However, Baker teaches that it is occasionally desired to change

information loaded in the nonvolatile memory of a control system of a vehicle carrying an

internal combustion engine (col. 1, lines 5-45). Therefore, it would have been obvious to one

having ordinary skill in the art at the time the invention was made to use Well's invention

(delivering/replacing software in an embedded system) with a vehicle carrying an internal

combustion engine. One of ordinary skill in the art would have been motivated to perform such

a modification because it is desirable to change information in the control system of vehicle, as

taught by Baker (col. 1, lines 5-45).

Allowable Subject Matter

13.   Claims 6, 10, 20 & 24 are objected to as being dependent upon a rejected base claim, but

would be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims. Claims 7-8, 11-12, 21-22 & 25-26 are objected to based on

their dependence on claims 6, 10, 20 & 24.

Conclusion

14.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

15.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Michael J. Simitoski whose telephone number is (571) 272-3841.

The examiner can normally be reached on Monday - Thursday, 6:45 a.m. - 4:15 p.m.. The

examiner can also be reached on alternate Fridays from 6:45 a.m. – 3:15 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Gregory Morse can be reached at (571) 272-3838.

Any response to this action should be mailed to:
          Commissioner of Patents and Trademarks
          Washington, DC 20231
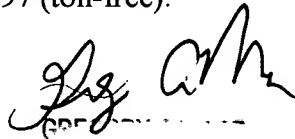**Or faxed to:**
          (703)746-7239 (for formal communications intended for entry)
Or:
          (571)273-3841 (Examiner's fax, for informal or draft communications, please
          label "PROPOSED" or "DRAFT")

Any inquiry of a general nature or relating to the status of this application or proceeding should
be directed to the receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SUPE   NER
TEC   )0

MJS
January 25, 2005